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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,954	01/28/2002	Edward B. Boden	END920010095US1	4643
30206	7590	02/09/2009		
IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER POLTORAK, PIOTR	
			ART UNIT 2434	PAPER NUMBER
			MAIL DATE 02/09/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/058,954

Applicant(s)

BODEN, EDWARD B.

Examiner

PETER POLTORAK

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/08/08 has been entered.

Response to Arguments/Amendment

2. In view of applicant's remarks and the amendment, the examiner once again reviewed the specification and noted that in the broadest reasonable interpretation, the VPN cited in the claim language could be interpreted as a virtual pirate network with the underling infrastructure implementing the VPN channel (e.g. nodes). Thus, the 35 U.S.C. 112, second paragraph rejection cited in the previous Office Action are withdrawn.
3. *As per the 35 USC § 103 rejection over Jason in view Zhou and further in view of Pfleeger, applicant alleges that "the Office attempts to cobble three completely unrelated references in its argument to the contrary". However, the only support for the allegation is that none of the references teach all the limitation: e.g. Pfleeger does not mention a VPN and IKE traffic, and Zhou no filtering, etc.*
Applicant arguments are not persuasive. The examiner points out that applicant's claim language was rejected under 35 USC § 103 (over Jason in view Zhou and

further in view of Pfleeger) and not 35 USC § 102. It is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, Jason, Zhou and Pfleeger's inventions are all directed towards computing art addressing network communication and, in particular, the security aspect of network communication traffic. Thus, the advantages of the systems of Jason, Zhou and Pfleeger's could have been easily combinable with more than reasonable expectations of success.

4. Claims 1-31 have been examined.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

5. Claims 1-4, 7-8 and 9-11, 13-27 and 30-31 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Jason (USPN 6636520) in view Zhou (J. Zhou, "Further analysis of the Internet key exchange protocol", Computer Communications, Volume 23, Issue 17, 11/1/2000) and further in view of Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866).

As per claim 1, Jason (USPN 6636520) discloses a virtual private network (VPN1 also referred to as T1) that enables a second VPN traffic (VPN2/T2, see Jason, Fig. 2 and associated text).

6. Jason does not disclose that the T2 uses IKE protocols.

Zhou discloses the use of IKE protocols (e.g. Zhou, "1. Introduction" and "2. IKE protocol"). It would have been obvious to an ordinary artisan to configure T2 disclosed by Jason to use IKE protocols given the benefit of security.

T2 using IKE protocols equate to IKE traffic.

7. Jason discloses that T1 is established prior to T2; thus, IKE traffic from outside the VPN flows into the VPN. Establishing T1 prior to T2 evidences that VPN connection precedes an IKE traffic management through VPN.
8. Jason in view of Zhu disclose a first node within the VPN (e.g. 204 or 206) but is silent in regard to the node using a filter detection system for searching for IKE traffic permit filters.

Pfleeger discloses a filter detection system for searching IKE traffic permit filters (firewalls such as screening routers or proxy gateways, Pfleeger pg. 429-431).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to employ a filter detection system for searching IKE traffic permit filters on a first node as taught by Pfleeger given the benefit of enable only authorized traffic.

9. As per newly introduced limitation, note that a first node (e.g. 204 or 206) is an endpoint in a VPN connection (see Fig. 2) and as such, the examiner equate the mechanism implementing VPN capabilities on the first node to a gateway.

10. Lastly, IKE traffic is freely allowed (either from 202 to 206 or from 206 to 202) in Jason in view of Zhou's invention. In other words, IKE traffic permit filters are not detected and IKE traffic is allowed to automatically through the VPN, which would equate to "automatically allowing IKE traffic from outside the VPN to flow into the VPN if the IKE traffic permit filters are not detected".
11. As per claim 3, node 206 equates to a second/remote node. (Note that for the purpose of claim 3, nodes 208 and/or 210 also read on a second node.)
12. As per claim 4, IKE traffic as discussed by Jason in view of Zhu's invention, used to establishes tunnel T2, thus establishes security associations for a VPN connection between the first node and the second node.
13. As per claim 7, a traffic management system implementing IKE traffic must have entries that identify the connection between nodes, IP address of connected nodes and security associations for the VPN connections; otherwise communicate traffic between these nodes would not be possible. Even if, somehow, implementing the traffic without these entries, using entries that identify the connection between nodes (e.g. a port) IP address of connected nodes and security associations is old and well known in the art of computer networking (e.g. Proxys, VPNs etc.), and including them would have been an obvious variation given the benefit of correct data communication. Also, given the fact that it is old and well known in the art that tables are used to store information (e.g. ACL, DNS entries etc.) it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to employ tables to store the IKE traffic entries for motivation of a quick access to the

information. Additionally, as per claim 8, tunnel T1 and T2 equate to a nested VPN connections.

14. Claims 9-11, 13-27 and 30-31 are substantially equivalent to claims 2-8; therefore claims 9-11, 13-27 and 30-31 are similarly rejected.

15. Claims 5-6, 12 and 28-29 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Jason (USPN 6636520) in view Zhou (J. Zhou, "Further analysis of the Internet key exchange protocol", Computer Communications, Volume 23, Issue 17, 11/1/2000) and Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866), and further in view Noehring (USPUB 2002/0188871).

16. Jason in view of Zhou and Pfleeger teach the first and the second node and the IKE traffic enablement system for automatically allowing IKE traffic from outside the VPN to flow into the VPN as discussed above.

17. Jason in view of Zhou and Pfleeger do not teach the IKE traffic enablement system allowing refreshing IKE traffic (used to refresh security association) to flow between the first node and the second node.

18. Noehring discloses an IKE traffic enablement system allowing refreshing IKE traffic (used to refresh security association) to flow between the first node and the second node (Noehrin, col. 15, claims 7-8, for example). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to enable the IKE traffic enablement system to refreshing IKE traffic (used to refresh security association) to

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flow between the first node and the second node as taught by Noehring given the benefit of maintained connection after the expiration of the security associations.

Note that IKE is used to establish a tunnel (VPN connection) between the first and the second node.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peter Poltorak/

Examiner, Art Unit 2134

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/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2434